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LETTER
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October 29th, 2001

Jim Austreng, Project Manager
California Environmental Protection Agency
Northern California—Office of Military Facilities
8800 Cal Center Drive
Sacramento CA 95826-3200

SUBJECT:
Comments on the Draft Environmental Impact Report: Tourtelot Remediation/Cleanup Project, Benicia CA, dated Spetember 2001; also the Draft Remedial Action Plan, Sept. 2001.

Dear Jim,

Thank you on behalf of many I know for leading this last phase of the preliminary work necessary before the actual cleanup of the Tourtelot Project site begins. I've appreciated every opportunity Cal-EPA has given the public to understand and comment on this project. I have personally attended nearly all the Tourtelot CAG meetings and all but one DTSC sponsored workshop, and have followed the development of the project from its beginnings in 1997-98. I have read both the Draft EIR and also the Draft RAP, and offered written comments on the RI/FS draft document.

I have been very impressed by the careful attention to detail given by Nicole Sotek and all those professionals contributing to the DEIR, including Ted Splitter for Northgate Environmental. My main concern all along has been to make sure that the various investigations (including the Army Corps' EE/CA) would be as conclusive and transparent as possible about the past uses of the site, that all possible OE and non-OE hazards and contaminants would be identified, and that the design of the cleanup and its actual conduct would make the site safe for the housing planned, account for any problem with the "Site Conceptual Model" and resolve those potential problems, and make specific plans for institutional controls and other methods for protecting the public in the future from any possible remaining hazards as part of a risk management plan.

I feel confident that the current DEIR and Draft RAP demonstrate that Cal-EPA is doing everything within its jurisdiction to protect the public health and safety on this unique, privatized military cleanup of an ordnance-contaminated site of the former Benicia Arsenal. The methodical and close analysis of details that the EPA's team has achieved in close work with USACE and Northgate (and EarthTech) is revealed in the

DEIR, which leaves little room for doubt or reservation about the care with which this cleanup is intended to be accomplished.
In light of the national tragedy unfolding and because of the bombing campaign in Afghanistan that began during this 45 day review period, I feel doubly appreciative of the care being given this project, albeit with a strange sense of our unique privilege: to be concerned to protect the public from what would appear to be minimal risks by comparison elsewhere. If all goes according to plan here, we should have a very safe and thorough cleanup, with little to worry about in the future from "residual risks" from remaining or undetected hazards. The perception of risk has been one of the general topics that has been most discussed at the CAG meetings, with some members seeming to want numerical proof of "how little actual risk" there is from any OE remnant that might accidentally explode during a removal action or be left undetected in the ground. (I've thought about our discussions—of accidental OE detonation during removal operation, etc.—in light of the seeming impossible odds of steering two planes into the WTC and bringing both towers down within 1/2 hour of each other... The entire government seems to be scrambling, trying to cope with a "worst case" they hadn't thought of, let alone planned for, despite the fact that a suicide hijacker had taken down an EgyptAir plane, enroute from NY to Cairo in 1993.) As the DEIR suggests, outlining the few questions left regarding the Site Conceptual Model, there are still answers to be gleaned from the cleanup itself. Whatever questions that remain unanswered by the cleanup about potential remaining hazards that may be left behind for whatever reason below ground in open space areas, the McAllister St.land-bridge, or "fill areas" outside the Project site, etc., must be fully articulated as part of the risk management plan or program associated to the final certification of the site by Cal-EPA. In my view, the public and the CAG should be encouraged to stay thoroughly involved until such a plan is hammered out, instituted and implemented by the City.

1. At the two recent CAG meetings held in September I offered comments on the DEIR which I would like incorporated. E-1

2. It may seem a small matter, but the Executive Summary does not fully summarize the material in 1.2 (Background of Project). E-2

3. I support the various comments made by CAG members, especially those regarding use of native grasses when re-seeding land disturbed by removal actions and the protection of wetlands in the South Valley. E-3

4. I would like to know what sort of Conservation Fund is being planned for and whether the public will have opportunity for input. E-4

5. The figure (2-5, Grading Map and Other Features) showing the areas outside the Project Site that received fill soils from the South Valley Ridge during excavations by the developer in the early 1990's needs to include the areas' roads and the house lots. The map in the RI/FS showing fill areas is much better, since the schematic is overlayed on the development's actual site plan (city zoning map?). E-5

6. I am confused by the actual number of houses being planned for the Site: in section 1.2 (Background ,1-3) 241 single family residences are said to have been proposed by Southampton Co, with an additional 50 houses to be built on adjoining 15 acres then owned by the City of Benicia, (acreage that was to be traded to Southampton Co.) In other places in the DEIR, most notably in one section on "growth-inducing" impacts, I couldn't find mention of the number of houses being planned for. In the section on Cumulative Impacts, however, the number of houses projected to be built is "426 single-family units and 42 accessory dwelling units on approximately 254 acres south of Lake Herman Park", on the Project Site... E-6

7. I would like to know how many houses the portion of the North Valley that is to be filled with soils (from the Ridge and South Valley demolition pit #3 kick-out area during OE removal activities as well as 14 feet of clean fill) will actually accommodate. E-7

8. I believe the DEIR should also consider the impact of the OE remediation plan chosen, which calls for filling in of the North Valley, in the case where, for whatever reason, the Project Site was *not* certified as safe (or "suitable") for residential. What would the Project Site look like after cleanup, if no houses were to get built except in the area of D-1? E-8

9. I believe that a straightforward description of how Cal-EPA will arrive at its final judgement that the Tourtelot Site is certifiable as "suitable" for housing following cleanup needs to be included in the final EIR and needs to be included as part of formal certification. In that description, a reasonable accounting of why the word "suitable" has been elected to replace "safe" would be most helpful, considering where the public began with its questions, petitioning DTSC prior to June 1, 1999. E-9

Thank you for considering these comments as part of your review of the DEIR. I'm very grateful to all involved at Cal-EPA and DTSC for its consistent and high level of oversight on this project.

Sincerely,

Marilyn Bardet

LETTER
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Granite Management Corporation
4041 MacArthur Boulevard, Suite 500
Newport Beach, CA 92660
Telephone (949) 440-7257
Fax (949) 261-8943

October 29, 2001

Jim Austreng, Project Manager
8800 Cal Center Drive
Sacramento, CA 95826-3200

RE: Tourtelot Cleanup Project

Dear Jim,

On behalf of Granite Management Corporation, we submit the enclosed comments on the Draft Remedial Action Plan and Draft Environmental Impact Report for the Tourtelot Cleanup Project.

Very Truly Yours,

Scott B. Goldie
Granite Management Corporation

Granite Comment #1: Section 3.2.1 of the Draft EIR describes the institutional controls to be imposed on "restricted areas" of the Project Site. The "restricted areas" include the Open Space Parcels and existing paved portions of the Project Site (i.e., the D-1 Roads and the paved portion of the McAllister Land Bridge). The second paragraph of Section 3.2.1 says that "Excavation activities [in restricted areas] would only be conducted using UXO technicians support." "Excavation activities" are defined by reference to the draft Covenant (Appendix B to Draft EIR). Similarly, Section A-3.5.2.4 in Appendix A of the Draft RAP requires that one of the elements of the Contingency Action Plan will be "The presence of qualified UXO technicians during excavation activities". The draft Covenant's current definition of Excavation Activities includes activities that can be safely conducted without UXO technicians support.

For example, the definition of Excavation Activities is broad enough that it would apply to fire discing in the Open Space Parcels. Fire discing would penetrate the ground less than one foot so it would not be considered an Excavation Activity under part (2) of the definition of Excavation Activities in the Covenant. However, fire discing on the Project Site would displace more than 10 cubic feet of soil which would make it an Excavation Activity under part (1) of the definition. Fire discing has occurred on the Project Site for many years without incident and without any reports of the unearthing of any OE related items. During the OE remediation activities, all Open Space parcels (including all areas where fire discing will occur) will be subject to point clearance plus the 100% QA QC scan. Given these considerations, it is reasonable to believe that fire discing can occur safely without having UXO technicians present.

F-1

In addition, the definition of Excavation Activities would apply to any work in utility trenches below D-1 Roads. Unit D-1 was cut to bedrock before utility trenches were excavated and except in the D-1 Fill Area, the trenches were backfilled with imported sand and with crushed bedrock and would accordingly be free of OE. During the grading of Unit D-1 and installation of the utility trenches, no encounters of OE or OE scrap were reported. Some of the utility trenches in the D-1 areas are not located under paved areas and will be subject to point clearance. This clearance activity would confirm that the utility trenches were backfilled only with imported sand and with crushed bedrock. Also, the utility trenches that are below pavement in the D-1 Fill Area will be subject to point clearance which would remove any non-crushed bedrock fill they may contain and would insure that they would be free of OE and OE scrap. Granite proposes that DTSC consider as part of the evaluation of the Site Conceptual Model whether it can reasonably be concluded based on the results of the point clearance of the Unit D-1 area that it is unlikely that OE would be present in utility trenches in D-1. If such a conclusion is reached, UXO technicians should not be required to be present when Excavation Activities occur in the trenches.

Finally, the definition of Excavation Activities would apply to work in utility trenches on the McAllister Land Bridge since the Land Bridge is located in an Open Space Parcel. Granite expects to revise the Draft OE RDD before it is approved by DTSC to require that areawide clearance protocols be used to clear a "utilities corridor" where the yet to be installed utilities would be located on the McAllister Land Bridge. It should not be necessary to have UXO support when excavating only within the confines of the cleared utilities corridor.

Granite Comment #2. The final paragraph of Section 3.3.5.4 of the Draft EIR discusses the subdrains to be installed in the North Valley. It indicates that the subdrains would be constructed using a blanket drain concept. The blanket drain would be constructed of Class 2 Permeable Material meeting Caltrans Standard Specification. The final paragraph of the sentence currently provides "No pipes would be installed within the Class 2 Permeable Material". Granite proposes to omit this final sentence of Section 3.3.5.4. Granite proposes to install two 8-inch diameter slotted pipes in the lower section of the three-foot thick drain. The slots will be sized to prevent loss of the Class 2 permeable material into the pipes. The intent of the pipes is to remove water more quickly from the drain to insure that hydrostatic pressures do not build up beneath the fill and saturate the fill. The original intent of eliminating the pipes from the drain was to eliminate the possibility that repair work might be required in the future if the drain malfunctioned. The concept of the blanket drain was developed to address this concern by installing a very wide and thick drain that would function without pipes. The blanket drain is still proposed and would function indefinitely even if the pipes were to collapse. Accordingly, it would never be necessary to repair the pipes. F-2

Granite Comment #3. Mitigation Measure 10-1 of the Draft EIR discusses the implementation of a Voluntary Separation Distance (VSD) based on the maximum fragmentation distance of the MPMs. Mitigation Measure 10-1 indicates that the initial VSD distances based on current MPMs would be 1,181 feet for a 37 mm item and 1,080 feet for a 60 mm item. The Mitigation Measure requires that notices be given to all residents, schools or businesses situated within the applicable VSD. Granite is evaluating the use of a Mobile Open Front Barricade during activities requiring an MSD when the applicable VSD, if one applied, would include Matthew Turner School. The purpose of using a Mobile Open Front Barricade is to reduce the maximum fragmentation distance that could be generated from an accidental detonation. When the Mobile Open Front Barricade is used, USACE procedures allow the maximum fragmentation distance to be reduced to 200 feet. Granite proposes that Mitigation Measure 10-1 be revised to clarify that through the use of engineering controls (the Mobile Open Front Barricade), the VSD can be reduced to 200 feet which would avoid impacts to the school since the school is located at a distance more than 200 feet from the boundary of the Project Site. F-3

Granite Comment #4. In Section 3.3.4 of the Draft EIR, Granite proposes to add the following landfill to both lists of potential landfill locations that appear on page 3-44: Forward Landfill, Stockton, California (Class II/III). F-4

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
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Gray Davis
Governor

LETTER
G

October 22, 2001
File No. 2128.04 (MRL)

Jim Austreng
California Environmental Protection Agency
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826-3200

Re: Tourtelot Remediation/Cleanup Project
North of Rose Drive and east of East 2nd Street
Benicia, California
SCH #1999042079

Dear Mr. Austreng:

We have received the above referenced Draft Environmental Impact Report (DEIR) and offer the following comments on issues concerning the Regional Water Quality Control Board.

The project objective is the remediation of all detected ordnance and explosives (OE) at the project site, including the identification, characterization, treatment, and removal of soil containing contaminant concentrations exceeding the final remediation goals.

The DEIR indicates that filling activities in both the North Valley and South Valley will result in the loss of jurisdictional wetlands. The DEIR also indicates that the short-term loss of marsh and riparian habitat from vegetation clearance in the South Valley could degrade the water quality of the wetlands. Third, there will be short-term impacts from increased storm water runoff from the South Valley. A Clean Water Act (CWA) Section 401 water quality certification is required for such activities. A CWA Section 404 Permit from the U.S. Army Corps of Engineers may also be necessary for this project. G-1

The Board adopted U.S. EPA's Section 404(b)(1), "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in its Basin Plan for determining the circumstance under which filling of wetlands, streams or other waters of the State may be permitted. The Section 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the United States, unless a discharge, as proposed, constitutes the least environmentally damaging practicable alternative that will achieve the basic project purpose. G-2

The Guidelines sequence the order in which proposal should be approached: (1) Avoid – avoid impacts to waters; (2) Minimize – modify project to minimize impacts to waters; and (3) Mitigate – once impacts have been fully minimized, compensate for unavoidable impacts to waters. When it is not possible to avoid water bodies, disturbance should be minimized. Mitigation for lost water body acreage and functions through restoration or creations should only be considered after disturbance has been minimized. G-2 Cont.

The proposed project would disturb more than five acres of land during implementation. As noted in Section 7.3.2, Project Impacts, an NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit) is required, as well as a Storm Water Pollution Prevention Plan (SWPPP). A Notice of Intent (NOI) must be filed with the State Water Resources Control Board, Division of Water Quality. Copies of the General Permit and NOI can be obtained from the State Board's web page, www.swrcb.ca.gov, or by contacting the San Francisco Bay Regional Water Quality Control Board at (510) 622-2300. G-3

Regional Board staff recommends obtaining a copy of *Start at the Source*, a design guidance manual for storm water quality protection. The manual provides innovative design techniques for structures, drainage systems, and landscaping. This manual may be obtained at most cities planning offices, or by calling the Regional Water Quality Control Board at (510) 622- 2465. G-4

Regional Board staff is unable to offer more specific comments at this time, however, I have attached our General Comments, which discuss the Regional Board's areas of responsibilities and may help guide the preparation of further CEQA documentation, if necessary. G-5

If you have any questions, please call me at (510) 622-2345.

Sincerely,

Stephen Berger
Water Resource Control Engineer

Enclosure: General Comments Document
cc: w/o enclosure: State Clearinghouse

General Comments

The San Francisco Regional Water Quality Control Board (Regional Board or RWQCB) is charged with the protection of the Waters of the State of California in the San Francisco Bay Region, including wetlands and stormwater quality. The Regional Board is responsible for administering the regulations established by the Federal Clean Water Act. Additionally, the California Water Code establishes broad state authority for regulation of water quality. The San Francisco Bay Basin Water Quality Control Plan (Basin Plan) explains the Regional Board's strategy for regulating water quality. The Basin Plan also describes the range of responses available to the Regional Board with regard to actions and proposed actions that degrade or potentially degrade the beneficial uses of the Waters of the State of California.

NPDES

The Federal National Pollutant Discharge Elimination System (NPDES) Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and nonpoint discharges, regulates water quality degradation. In California, the program is administered by the California Regional Water Quality Control Boards. The Regional Board issues NPDES permits for discharges to water bodies in the San Francisco Bay Area, including Municipal (area- or county-wide) Stormwater Discharge Permits.

G-5
Cont.

Projects disturbing more than five acres of land during construction must be covered under the State NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). This can be accomplished by filing a Notice of Intent with the State Water Resources Control Board. An NOI and the General Permit can be obtained from the Board at (510) 622-2300. The project sponsor must propose and implement control measures that are consistent with the General Permit and with the recommendations and policies of the local agency and the RWQCB.

Projects that include facilities with discharges of Storm Water Associated with Industrial Activity must be covered under the State NPDES General Permit for Discharges of Storm Water Associated with Industrial Activity. This may be accomplished by filing a Notice of Intent. The project sponsor must propose control measures that are consistent with this, and with recommendations and policies of the local agency and the RWQCB. In a few cases, the project sponsor may apply for (or the RWQCB may require) issuance of an individual (industry- or facility-specific) permit.

The RWQCB's Urban Runoff Management Program requires Bay Area municipalities to develop and implement storm water management plans (SWMPs). The SWMPs must include a program for implementing new development and construction site storm water quality controls. The objective of this component is to ensure that appropriate measures to control pollutants from new development are: considered during the planning phase, before construction begins; implemented during the construction phase; and maintained after construction, throughout the life of the project.

Impacts and Mitigation Measures

Wetlands

Wetlands enhance water quality through such natural functions as flood and erosion control, stream bank stabilization, and filtration and purification of contaminants. Wetlands also provide critical habitats for hundreds of species of fish, birds, and other wildlife, offer open space, and provide many recreational opportunities. Water quality impacts occur in wetlands from construction of structures in waterways, dredging, filling, and altering drainage to wetlands.

The Regional Board must certify that any permit issued by the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act (covering, dredging, or filling of Waters of the United States, including wetlands) complies with state water quality standards, or waive such certification. Section 401 Water Quality Certification is necessary for all 404 Nationwide permits, reporting and non-reporting, as well as individual permits.

All projects must be evaluated for the presence of jurisdictional wetlands and other Waters of the State. Destruction of or impact to these waters should be avoided. If the proposed project impacts wetlands or other Waters of the State and the project applicant is unable to demonstrate that the project was unable to avoid those adverse impacts, water quality certification will most likely be denied. 401 Certification may also be denied based on significant adverse impacts to wetlands or other Waters of the State. In considering proposals to fill wetlands, the Regional Board has adopted the California Wetlands Conservation Policy (Executive Order W-59-93, signed August 23, 1993). The goals of the Policy include ensuring "no overall net loss and achieving a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values." Under this Policy, the Regional Board also considers the potential post-construction impacts to wetlands and Waters of the State and evaluates the measures proposed to mitigate those impacts (see Storm Water Quality Control, below).

G-5
Cont.

The Regional Board has adopted U.S. EPA's Clean Water Act Section 404(b)(1) "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in the Board's Basin Plan for determining the circumstances under which fill may be permitted.

Section 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the United States, unless a discharge, as proposed, constitutes the least environmentally damaging practicable alternative that will achieve the basic project purpose. For non-water dependent projects, the guidelines assume that there are less damaging alternatives, and the applicant must rebut that assumption.

The Section 404(b)(1) Guidelines sequence the order in which proposals should be approached. First, impacts to wetlands or Waters of the State must be avoided to the maximum extent practicable. Second, the remaining impacts must be minimized. Finally, the remaining unavoidable adverse impacts to wetlands or Waters of the State must be mitigated. Mitigation will be preferably in-kind and on-site, with no net destruction of habitat value. A proportionately greater amount of mitigation is required for projects that are out-of-kind and/or off-site. Mitigation will preferably be completed prior to, or at least simultaneous to, the filling or other loss of existing wetlands.

Successful mitigation projects are complex tasks and difficult to achieve. This issue will be strongly considered during agency review of any proposed wetland fill. Wetland features or ponds created as mitigation for the loss of existing jurisdictional wetlands or Waters of the United States cannot be used as storm water treatment controls.

In general, if a proposed project impacts wetlands or Waters of the State and the project applicant is unable to demonstrate that the project was unable to avoid adverse impacts to wetlands or Waters of the State, water quality certification will be denied. 401 Certification may also be denied based on significant adverse impacts to wetlands or other Waters of the State.

Storm Water Quality Control

Storm water is the major source of fresh water to creeks and waterways. Storm water quality is affected by a variety of land uses and the pollutants generated by these activities. Development and construction activities cause both site-specific and cumulative water quality impacts. Water quality degradation may occur during construction due to discharges of sediment, chemicals, and wastes to nearby storm drains or creeks. Water quality degradation may occur after construction is complete, due to discharges of petroleum hydrocarbons, oil, grease, and metals from vehicles, pesticides and fertilizers from landscaping, and bacteria from pets and people. Runoff may be concentrated and storm water flow increased by newly developed impervious surfaces, which will mobilize and transport pollutants deposited on these surfaces to storm drains and creeks. Changes in runoff quantity or velocity may cause erosion or siltation in streams. Cumulatively, these discharges will increase pollutant loads in creeks and wetlands within the local watershed, and ultimately in San Francisco Bay.

To assist municipalities in the Bay Area with complying with an area-wide NPDES Municipal Storm Water Permit or to develop a Baseline Urban Runoff Program (if they are not yet a co-permittee with a Municipal Storm Water Permit), the Regional Board distributed the *Staff Recommendations for New and Redevelopment Control for Storm Water Programs* (Recommendations) in April 1994. The Recommendations describe the Regional Board's expectations of municipalities in protecting storm water quality from impacts due to new and redevelopment projects, including establishing policies and requirements to apply to development areas and projects; initiating appropriate planning, review, approval, and inspection procedures; and using best management practices (BMPs) during construction and post-construction. G-5 Cont.

Developing and implementing a Storm Water Pollution Prevention Plan (SWPPP) should minimize project impacts. A SWPPP is required by the State Construction Storm Water General Permit (General Permit). The SWPPP should be consistent with the terms of the General Permit, the Manual of Standards for Erosion & Sedimentation Control Measures by the Association of Bay Area Governments (ABAG), policies and recommendations of the local urban runoff program (city and/or county), and the Recommendations of the RWQCB. SWPPPs should also be required for projects that may have impacts, but which are not required to obtain an NPDES permit. Preparation of a SWPPP should be a condition of development. Implementation of the SWPPP should be enforced during the construction period via appropriate options such as citations, stop work orders, or withholding occupancy permits.

Impacts identified should be avoided and minimized by developing and implementing the types of controls listed below. Explanations of the controls are available in the Regional Board's construction *Field Manual*, available from Friends of the San Francisco Estuary at (510) 286-0924, in BASMAA's *Start at the Source*, and in the *California Storm Water Best Management Practice Handbooks*.

Site Planning

The project should minimize impacts from project development by incorporating appropriate site planning concepts. This should be accomplished by designing and proposing site planning options as early in the project planning phases as possible. Appropriate site planning concepts to include, but are not limited to the following:

- Phase construction to limit areas and periods of impact.
- Minimize directly connected impervious areas.
- Preserve natural topography, existing drainage courses and existing vegetation.
- Locate construction and structures as far as possible from streams, wetlands, drainage areas, etc.
- Provide undeveloped, vegetated buffer zones between development and streams, wetlands, drainage areas, etc.
- Reduce paved area through cluster development, narrower streets, and use of porous pavement and/or retaining natural surfaces.
- Minimize the use of gutters and curbs, which concentrate and direct runoff to impermeable surfaces.
- Use existing vegetation and create new vegetated areas to promote infiltration.
- Design and lay out communities to reduce reliance on cars.
- Include green areas for people to walk their pets, thereby reducing build-up of bacteria, worms, viruses, nutrients, etc. in impermeable areas, or institute ordinances requiring owners to collect pets' excrement.
- Incorporate low-maintenance landscaping.
- Design and lay out streets and storm drain systems to facilitate easy maintenance and cleaning.
- Consider the need for runoff collection and treatment systems.
- Label storm drains to discourage dumping of pollutants into them

G-5 Cont.

Erosion

The project should minimize erosion and control sediment during and after construction. This should be done by developing and implementing an erosion control plan, or equivalent plan. This plan should be included in the SWPPP. The plan should specify all control measures that will be used or which are anticipated to be used, including, but not limited to, the following:

- Limit access routes and stabilize access points.
- Stabilize denuded areas as soon as possible with seeding, mulching, or other effective methods.
- Protect adjacent properties with vegetative buffer strips, sediment barriers, or other effective methods.
- Delineate clearing limits, easements, setbacks, sensitive areas, vegetation and drainage courses by marking them in the field.
- Stabilize and prevent erosion from temporary conveyance channels and outlets.
- Use sediment controls and filtration to remove sediment from water generated by dewatering or collected on-site during construction. For large sites, stormwater settling basins will often be necessary.

Chemical and Waste Management

The project should minimize impacts from chemicals and wastes used or generated during construction. This should be done by developing and implementing a plan or set of control measures. The plan or control measures should be included in the SWPPP. The plan should specify all control measures that will be used or which are anticipated to be used, including, but not limited to, the following:

- Designate specific areas of the site, away from streams or storm drain inlets, for storage, preparation, and disposal of building materials, chemical products, and wastes.
- Store stockpiled materials and wastes under a roof or plastic sheeting.
- Store containers of paint, chemicals, solvents, and other hazardous materials stored in containers under cover during rainy periods.
- Berm around storage areas to prevent contact with runoff.
- Cover open Dumpsters securely with plastic sheeting, a tarp, or other cover during rainy periods.
- Designate specific areas of the site, away from streams or storm drain inlets, for auto and equipment parking and for routine vehicle and equipment maintenance.
- Routinely maintain all vehicles and heavy equipment to avoid leaks.
- Perform major maintenance, repair, and vehicle and equipment washing off-site, or in designated and controlled areas on-site.
- Collect used motor oil, radiator coolant or other fluids with drip pans or drop cloths.
- Store and label spent fluids carefully prior to recycling or proper disposal.
- Sweep up spilled dry materials (cement, mortar, fertilizers, etc.) immediately--do not use water to wash them away.
- Clean up liquid spills on paved or impermeable surfaces using "dry" cleanup methods (e.g., absorbent materials, cat litter, rags) and dispose of cleanup materials properly.
- Clean up spills on dirt areas by digging up and properly disposing of the soil.
- Keep paint removal wastes, fresh concrete, cement mortars, cleared vegetation, and demolition wastes out of gutters, streams, and storm drains by using proper containment and disposal.

G-5
Cont.

Post-Construction

The project should minimize impacts from pollutants that may be generated by the project following construction, when the project is complete and occupied or in operation. These pollutants may include: sediment, bacteria, metals, solvents, oil, grease, and pesticides, all of which are typically generated during the life of a residential, commercial, or industrial project after construction has ceased. This should be done by developing and implementing a plan and set of control measures. The plan or control measures should be included in the SWPPP.

The plan should specify all control measures that will be used or which are anticipated to be used, including, but not limited to, the source controls and treatment controls listed in the Recommendations. Appropriate control measures are discussed in the Recommendations, in:

- Table 2: Summary of residential post-construction BMP selection
- Table 3: Summary of industrial post-construction BMP selection
- Table 4: Summary of commercial post-construction BMP selection

Additional sources of information that should be consulted for BMP selection include the *California Storm Water Best Management Practice Handbooks;* the Bay Area Preamble to the *California Storm Water Best Management Practice Handbooks and New Development Recommendations*; the BASMAA New Development Subcommittee meetings, minutes, and distributed information; and Regional Board staff. Regional Board staff also has fact sheets and other information available for a variety of structural stormwater treatment controls, such as grassy swales, porous pavement and extended detention ponds.

G-5 Cont.